

## Round 2 Management Actions Workshops

### Categories of Management Actions for Urban Areas Workshop

| Management Action Category <sup>1</sup> | Types of Management Actions in this Category |   |
|---|--|---|
|   | ID <sup>2</sup>                              | Title   |
| Flood Protection System Modification    | MA-016                                       | Improve conveyance and facilitate habitat restoration by reducing flow constrictions.   |
|   | MA-017                                       | Increase capacity of existing bypasses.   |
|   | MA-018                                       | Modify existing weirs or overflows to improve flood system performance.   |
|   | MA-019                                       | Construct new bypasses to improve flood system performance.   |
|   | MA-020                                       | Construct new levees to expand existing system capability.  |
|   | MA-021                                       | Raise levees to improve flood system performance.   |
|   | MA-022                                       | Construct setback levees.   |
|   | MA-023                                       | Construct ring levees.  |
|   | MA-024                                       | Improve structural performance of existing levees.  |
|   | New MAs Under Consideration                  | <ul style="list-style-type: none"> <li>Construct closure structures.</li> <li>Remove and/or deauthorize levees.</li> <li>Construct training levees or levees that subdivide larger basins.</li> </ul> |
| Floodplain Management                   | MA-025                                       | Acquire floodplain property that can contribute to flood management system efficiency.  |
|   | MA-026                                       | Manage municipal stormwater to provide regional or systemwide flood benefits.   |
|   | MA-028                                       | Coordinate and streamline floodplain mapping to improve consistency of floodplain delineation and assessment of flood risk.   |
|   | MA-074                                       | Increase flood risk awareness through outreach.   |
|   | MA-075                                       | Provide technical assistance to local agencies for compliance and grant application assistance.   |
|   | MA-076                                       | Assist in development of local flood management plan updates.   |
|   | MA-077                                       | Improve awareness of Community Rating System insurance-rate adjusting program.  |
|   | MA-078                                       | Develop mandatory flood insurance programs that are consistent with the risk of flooding.   |
|   | MA-079                                       | Increase public understanding of FEMA maps and policies.  |
|   | MA-080                                       | Eliminate subsidies for structures that are repetitively damaged.   |

<sup>1</sup> Management Action Categories listed in order as they appear in Draft Workshop Worksheet.

<sup>2</sup> ID is used to track management actions and do not indicate any ranking or importance.

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|   | New MA Under Consideration                   | <ul style="list-style-type: none"> <li>Floodproof structures in the floodplain.</li> </ul>                                      |
| Additional Floodplain and Reservoir Storage | MA-001                                       | Enlarge existing transitory floodplain storage.   |
|   | MA-002                                       | Construct new transitory floodplain storage.  |
|   | MA-003                                       | Increase on-stream flood storage capacity by building new storage facilities.   |
|   | MA-004                                       | Update/modify existing flood storage facilities.  |
|   | MA-005                                       | Create new storage in existing reservoirs via dredging activities.  |
|   | MA-006                                       | Increase flood control allocation by expanding existing, on-stream reservoirs.  |
|   | MA-007                                       | Increase foothill and upper watershed storage.  |
|   | MA-008                                       | Increase flood control allocation by using Spillway Surcharge.  |
|   | MA-009                                       | Increase flood control allocation at existing reservoirs by building new, off-stream storage.                                   |
|   | MA-010                                       | Increase flood control allocation at existing reservoirs by expanding existing off-stream storage.                              |
| Storage Operations                          | MA-011                                       | Establish partnerships to coordinate flood management structure operations.   |
|   | MA-012                                       | Increase flood management flexibility through modifications to the magnitude/timing of flood reservations in reservoirs.        |
|   | MA-013                                       | Increase flood management flexibility through modifications to objective release schedules at flood management reservoirs.      |
|   | MA-014                                       | Increase flood management flexibility by implementing conjunctive use programs at flood management reservoirs.                  |
|   | MA-015                                       | Increase flood management flexibility by using transitory storage.  |
| Disaster Preparedness & Flood Warning       | MA-063                                       | Coordinate flood response planning and clarify roles and responsibilities related to flood preparedness and emergency response. |
|   | MA-064                                       | Improve communication and public awareness of emergency response procedures and terminology.                                    |
|   | MA-065                                       | Establish standard flood warning systems and procedures.  |
|   | MA-066                                       | Improve stream gage network for forecasting purposes.   |
|   | MA-067                                       | Implement advanced weather forecast-based operations to increase reservoir management flexibility.                              |
|   | MA-068                                       | Create systemwide levee instrumentation for early warning systems.  |

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| Flood Fighting, Emergency Response & Flood Recovery | MA-069                                       | Protect critical infrastructure corridors from flood waters.  |
|   | MA-070                                       | Expand the State's assistance to LMAs during flood emergencies.   |
|   | MA-071                                       | Improve evacuation planning.  |
|   | MA-072                                       | Develop a post-flood recovery plan for the Central Valley and Delta to improve the coordination and efficiency of post-flood public assistance.   |
|   | MA-073                                       | Streamline the post-flood permitting process for flood system repairs.  |
|   | MA-081                                       | Purchase and position flood fighting materials in preparation for a flood event.  |
|   | New MA Under Consideration                   | <ul style="list-style-type: none"> <li>Integrate environmental compliance and mitigation into flood fighting.</li> </ul>                          |
| Ecosystem Restoration                               | MA-039                                       | Reduce runoff through upper watershed management.   |
|   | MA-040                                       | Improve quality and quantity of wetland habitat within the flood system.  |
|   | MA-041                                       | Improve quality and quantity of riparian habitat in the flood system.   |
|   | MA-042                                       | Improve natural riverine processes by removing un-natural hard points along channels  |
|   | MA-043                                       | Develop hazardous waste and materials management protocols to identify, contain and remediate potential water quality hazards within floodplains. |
|   | MA-044                                       | Reoperate flood-control reservoirs to more closely approximate natural flow regimes.  |
|   | MA-045                                       | Reduce the incidence of invasive species in the flood management system.  |
|   | MA-046                                       | Remove barriers to fish passage within the flood system.  |
|   | MA-047                                       | Set back levees to connect rivers to floodplains.   |
|   | MA-048                                       | Reconnect floodplains to restore seasonal habitat.  |
|   | New MA Under Consideration                   | <ul style="list-style-type: none"> <li>Facilitate natural sediment transport.</li> </ul>  |

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| Finance & Revenue                       | MA-059                                       | Increase funding for flood management projects by leveraging Federal funding.  |
|   | MA-060                                       | Leverage funding from multiple projects to improve cost- effectiveness and efficiency of flood management projects.  |
|   | MA-061                                       | Create a bank or other financial mechanism that pre-funds both O&M and mitigation activities.  |
|   | MA-062                                       | Explore alternative funding for O&M and new flood management improvements.   |
|   | MA-082                                       | Compensate rural areas for accepting lesser flood protection than urban areas.   |
|   | New MAs Under Consideration                  | <ul style="list-style-type: none"> <li>Establish a methodology for evaluating benefits and costs on a systemwide basis to support economic justification for projects in all community settings.</li> <li>Create a strategic pooled money account the pre-funds avoidance/mitigation solutions for operation and maintenance impacts on current and future flood control structures.</li> <li>Create a strategic pooled money account that could provide funds for land stewardship activities at current and future flood-related mitigation areas over perpetuity.</li> <li>Create a strategic pooled money account that provides funds and consultation assistance to agencies that have operation and maintenance responsibilities.</li> </ul> |
| Policy & Regulations                    | MA-049                                       | Encourage compatible land uses with flood management system and floodplain function.   |
|   | MA-050                                       | Establish clear triggers or policy for updating flood management-related General Plan elements and other local flood management plan(s).   |
|   | MA-051                                       | Update State's designated floodway program.  |
|   | MA-052                                       | Use Building Code amendments to reduce consequence of flooding   |
|   | MA-053                                       | Update state and local floodplain management policy to be consistent with FEMA requirements for maintaining eligibility for NFIP participation and federal financial assistance.   |
|   | MA-057                                       | Encourage multi-jurisdictional and regional partnerships on flood planning and improve agency coordination on flood management activities, including operation and maintenance, repair, and restoration  |
|   | MA-058                                       | Develop State criteria and processes for urban flood protection  |
|   | New MAs Under Consideration                  | <ul style="list-style-type: none"> <li>Develop criteria for flood protection outside urban areas.</li> <li>Update Title 23 standards.</li> <li>Clarify responsibilities for all agencies of all local, regional, State, and federal.</li> </ul>  |

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|                            | ID   | Title   |
| Operation & Maintenance)   | MA-029                                       | Restore channel form and function to improve O&M and facilitate flood damage reduction.   |
|                            | MA-030                                       | Perform clearing and snagging within channels.  |
|                            | MA-031                                       | Perform dredging to remove sediment from channels.  |
|                            | MA-032                                       | Reuse excess materials derived from channel maintenance.  |
|                            | MA-033                                       | Develop regional vegetation management plans.   |
|                            | MA-034                                       | Improve administration of encroachment permits.   |
|                            | MA-035                                       | Improve administration and oversight of levee penetrations.   |
|                            | MA-036                                       | Improve interior drainage.  |
|                            | MA-037                                       | Protect vulnerable levees and banks through stabilization and erosion repairs.  |
|                            | MA-038                                       | Revise O&M manuals and inspection criteria to promote best maintenance practices that support multi-benefits of the flood system.   |
|                            | MA-083                                       | Effectively maintain and operate closure structures.  |
|                            | New MAs Under Consideration                  | <ul style="list-style-type: none"> <li>Develop and implement structure rehabilitation and repair program.</li> </ul>  |
| Permitting                 | MA-054                                       | Develop regional and river-corridor conservation plans, or expand existing regional conservation plans (such as regional Habitat Conservation Plans and Natural Community Conservation Plans) to provide a more efficient and effective regulatory approval process for flood projects.   |
|                            | MA-055                                       | Develop regional advance mitigation strategies and networks of mitigation banks to meet the needs of flood and other public infrastructure projects.  |
|                            | MA-056                                       | Develop regional permitting approaches such as corridor management strategies (CMS).  |
|                            | New MAs Under Consideration                  | <ul style="list-style-type: none"> <li>Establish Memoranda of Understanding and/or management agreements between agencies to integrate project plans and permits.</li> <li>Expand the scope or use of the Small Erosion Repair Program for both existing and new projects.</li> <li>Develop a permitting handbook for flood management projects.</li> </ul> |